ЖУРНАЛ МЕДИЦИНА И ИННОВАЦИИ

MEDICINE and INNOVATIONS

2(10) июнь, 2023

Hомер ISSN 2181-1873 (Online)

WWW.TSDI.UZ



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IMPORTANCE OF DIGITAL X-RAY DIAGNOSIS IN EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS IN MODERN **CONDITIONS**

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ЗНАЧЕНИЕ ЦИФРОВОЙ РЕНТГЕНОВСКОЙ ДИАГНОСТИКИ В РАННЕЙ ДИАГНОСТИКЕ ТУБЕРКУЛЕЗА ЛЕГКИХ В СОВРЕМЕННЫХ УСЛОВИЯХ

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ZAMONAVIY SHARTLARDA OʻPKA TUBERKULYOZINI ERTA TASHHIS OO'YISHDA RAOAMLI RENTGEN DIAGNOSTIKASINING **AXAMIYATI.**

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ABSTRACT

In modern conditions, where the speed and accuracy of diagnosis are crucial, digital x-rays offer a distinct advantage over traditional film-based x-rays by providing high-resolution images that can be instantly and remotely accessed by medical professionals. This capability enables physicians to rapidly identify abnormalities in lung tissue, such as nodules or cavities, that may indicate the presence of tuberculosis. Early detection of tuberculosis is essential in preventing its spread, as it is a highly contagious disease that can cause severe respiratory illness and even death if left untreated. Digital x-ray diagnosis also allows for a more detailed evaluation of the extent of pulmonary damage caused by TB, enabling physicians to make more informed decisions regarding the course of treatment needed.

Furthermore, digital x-rays are significantly less harmful than traditional x-rays, reducing the risk of exposure to patients and healthcare professionals alike. These benefits make digital x-ray diagnosis a critical tool in the fight against tuberculosis, enabling healthcare providers to identify and treat cases quickly and effectively, ultimately contributing to the eradication of this dangerous disease.

Key words: digital x-ray diagnosis, early diagnosis, pulmonary tuberculosis, modern conditions, tuberculosis control, healthcare

КИДАТОННА

В современных условиях, когда скорость и точность диагностики имеют решающее значение, цифровые рентгеновские снимки имеют явное преимущество перед традиционными рентгеновскими снимками на пленке, предоставляя изображения с высоким разрешением, к которым медицинские работники могут получить мгновенный и удаленный доступ. Эта возможность позволяет врачам быстро выявлять аномалии в легочной ткани, такие как узелки или полости, которые могут указывать на наличие туберкулеза.

Раннее выявление туберкулеза имеет важное значение для предотвращения его распространения, поскольку это высококонтагиозное заболевание, которое может вызвать тяжелое респираторное заболевание и даже смерть, если его не лечить. Цифровая рентгенодиагностика также позволяет более детально оценить степень повреждения легких, вызванного туберкулезом, что позволяет врачам принимать более обоснованные решения относительно необходимого курса лечения.

Кроме того, цифровые рентгеновские лучи значительно менее вредны, чем традиционные рентгеновские лучи, что снижает риск облучения как пациентов, так и медицинских работников. Эти преимущества делают цифровую рентгеновскую диагностику важнейшим инструментом в борьбе с туберкулезом, позволяя медицинским работникам быстро и эффективно выявлять и лечить случаи заболевания, что в конечном итоге способствует искоренению этого опасного заболевания.

Ключевые слова: цифровая рентгенодиагностика, ранняя диагностика, туберкулез легких, современные условия, борьба с туберкулезом, здравоохранение

ANNOTATSIYA

Tashxis qo'yish tezligi va aniqligi hal qiluvchi ahamiyatga ega bo'lgan zamonaviy sharoitlarda raqamli rentgen nurlari an'anaviy plyonkali rentgen nurlariga nisbatan yuqori aniqlikdagi tasvirlarni taqdim etish orqali tibbiyot mutaxassislari tomonidan darhol va masofadan turib foydalanish imkoniyatini beradi. Bu qobiliyat shifokorlarga o'pka to'qimasida

tuberkulyoz mavjudligini ko'rsatishi mumkin bo'lgan nodullar yoki bo'shliqlar kabi anormalliklarni tezda aniqlash imkonini beradi.

Sil kasalligini erta aniqlash uning tarqalishining oldini olishda muhim ahamiyatga ega, chunki u o'ta yuqumli kasallik bo'lib, davolanmasa, nafas olish yo'llari og'ir kasalliklarga va hatto o'limga olib kelishi mumkin. Raqamli rentgen diagnostikasi, shuningdek, sil kasalligidan kelib chiqqan o'pka shikastlanishi darajasini batafsilroq baholash imkonini beradi, bu esa shifokorlarga kerakli davolanish kursi bo'yicha ko'proq ma'lumotli qarorlar qabul qilish imkonini beradi.

Bundan tashqari, raqamli rentgen nurlari an'anaviy rentgen nurlariga qaraganda sezilarli darajada kamroq zararli bo'lib, bemorlar va tibbiyot xodimlariga ta'sir qilish xavfini kamaytiradi. Ushbu imtiyozlar raqamli rentgen diagnostikasini sil kasalligiga qarshi kurashda muhim vositaga aylantiradi, bu esa tibbiyot xodimlariga kasalliklarni tez va samarali aniqlash va davolash imkonini beradi va natijada ushbu xavfli kasallikning yo'q qilinishiga hissa qo'shadi.

Kalit so'zlar: raqamli rentgen diagnostikasi, erta tashxis, o'pka tuberkulyozi, zamonaviy sharoitlar, silga qarshi kurash, sog'liqni saqlash

Tuberculosis is a serious social, infectious disease. Tuberculosis remains one of the important problems of the health care system. [5] Tuberculosis, caused by Mycobacterium tuberculosis, remains one of the ten leading causes of death worldwide and the leading cause of death from infectious diseases. [3] Tuberculosis is often transmitted from a sick person to a healthy person. Children are especially susceptible to tuberculosis. The younger the child, the more severe the disease. During the period of hormonal changes in the body, in teenagers, the susceptibility to tuberculosis also increases.

According to the World Health Organization, approximately 10 million people worldwide were infected with various forms of tuberculosis in 2019, including 5.6 million men, 3.2 million women and 1.2 million children. Tuberculosis is common in all countries and age groups.

Globally, the incidence of tuberculosis is decreasing by about 2% per year, and the overall decrease was 9% between 2015 and 2019. This is less than half of the 2015-2020 End TB Strategy Plan, 20%. [2]

According to the WHO, in countries with high TB incidence rates, due to late detection of the disease, the incidence rate has decreased against the background of an expected increase in the number of deaths from it. [7] Significant improvements have been made in overall TB care in Uzbekistan in recent decades. [4] Despite the decrease in the level of the disease, there are cases of tuberculosis among the holders of epidemiologically important professions, students of preschool educational institutions, schoolchildren, students studying in secondary and higher vocational education institutions. continues to be done.

Early detection of tuberculosis is an integral part of disease control. Early identification of patients with tuberculosis disease is carried out by medical staff of general medical network institutions during the examination of patients seeking medical help, as well as during scheduled preventive examinations of certain groups of the population.

Taking into account the social and epidemic danger of tuberculosis disease, it is recommended that all layers of the population be examined at least once every 2 years. In addition, population groups that are more prone to tuberculosis are

noted. They undergo regular preventive medical examination 1-2 times a year, regardless of whether they have symptoms of tuberculosis or not.

The average life expectancy of the population and the increase in the percentage of patients suffering from tuberculosis at an older age lead to a greater number of patients with various chronic bronchopulmonary and cardiovascular pathologies applying to anti-tuberculosis institutions. [1] Identification of these groups and their systematic examination is one of the indispensable conditions for the timely detection of tuberculosis, because 60-68 percent of disseminated and destructive forms of tuberculosis are detected in patients who seek medical care in polyclinics.

Tuberculosis epidemics are well under control in most developed countries, and the main focus in these areas is to eliminate tuberculosis. In non-endemic areas, transmission is limited and most cases of tuberculosis occur as a result of reactivation of latent infection. Widespread use of preventive therapy with adequate resources will help eliminate the latent infection needed to end tuberculosis. Different coverage of the issues raised in the literature determined the relevance of our research and became the basis for this work. [8]

The purpose and task of our study is to analyze the data obtained in the early detection of primary pulmonary tuberculosis and other non-specific lung diseases using the digital X-ray diagnostic method in modern conditions.

Materials and methods. In the study, the outpatient card of 181 patients diagnosed with tuberculosis for the first time at the 4th anti-tuberculosis dispensary in Tashkent was retrospectively analyzed during 2021. Tuberculosis was diagnosed on the basis of clinical, laboratory and X-ray data.

Results. During 2021, 136 (%) adults, 45 (%) children and adolescents were diagnosed with tuberculosis for the first time by age group. 135 of them were infected with tuberculosis of respiratory organs, 46 with tuberculosis of organs other than the lungs. Tuberculosis was diagnosed in 80 patients during preventive examination, and 101 patients who came for medical examination. 38 of the patients diagnosed with tuberculosis during the preventive examination were adults, 42 were children and teenagers. It was found that 18 patients in the group of adults undergoing preventive examination were infected with focal tuberculosis, 10 patients with infiltrative tuberculosis, 6 patients with tuberculosis and scattered pulmonary tuberculosis, cavernous tuberculosis, and 1 patient with urogenital tuberculosis. In the group of children, 29 patients had tuberculosis of the intrathoracic lymph nodes, 7 patients had tuberculosis of peripheral lymph nodes, 4 patients had latent tuberculosis infection, and 2 patients had a primary tuberculosis complex.

Conclusions. When developing a plan of treatment, diagnosis, rehabilitation and preventive measures in specialized medical centers, it is necessary to take into account the course of the disease, its form, stage and course of treatment. [8] To date, there are three main directions in the fight against tuberculosis: prevention, early detection and rational treatment. The preventive direction of measures is of particular importance. Accordingly, during 2021,

almost half of the cases of tuberculosis diagnosed for the first time at the 4th antituberculosis dispensary in Tashkent were detected during preventive medical examinations. This indicates that preventive medical examinations occupy one of the main places in the fight against tuberculosis. Patients with comorbidities and patients with drug-resistant TB should be closely monitored for successful completion of anti-tuberculosis treatment. [6] Timely and early diagnosis of tuberculosis, especially in children and adolescents, is considered to be the main factor of rational and adequate treatment of tuberculosis and the complete elimination of this infectious disease in our country.

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